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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402-0938

EXAMINER	
HABTE, ZEWDU	
ART UNIT	**PAPER NUMBER**
2661	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/924,956	SIMONSON ET AL.	
	Examiner	Art Unit	
	Zewdu Habte	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-15 and 17-38* is/are rejected.

7)☒ Claim(s) *7 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4-6, 8-10, 12-15, 17, 22 and 32-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Shaughnessy et al. (6141347).

As to claims 1 and 22, Shaughnessy discloses receiving a digital message from a communication source coupled to a network [col. 6, lines 38-39 (the site receives a message from a subscriber unit) illustrated in step 601];

selecting a multicast address from a plurality of addresses based on a communication group identification number received from the communication source [col. 6, lines 49-51, the site determines (selecting a corresponding group identification within the controller database) illustrated in step 602], the communication group identification number including two or more members [Fig. 1, (shown under TG ID are groups A, C, D, and G; also, under group D, there are subscribers 211, 212, 213)];

communicating a routing signal based on the selected multicast address to selected elements of the network [col. 7, lines 26-31]; and

distributing the digital message to the members using the selected elements based on the routing signal [col. 7, lines 31-35].

As to claim 2, Shaughnessy teach wherein receiving a digital message includes receiving a digital message from a two way radio [the subscriber unit is a two way radio, so it receives messages from a two way radio].

As to claim 4, Shaughnessy teaches wherein selecting a multicast address includes mathematically mapping the communication group identification number to the multicast address [implicitly taught because a processor in a server is programmed to map a communication group identification number to the multicast address accordingly].

As to claims 5 and 6, Shaughnessy teaches wherein selecting a multicast address from a plurality of addresses based on a communication group identification number received from the communication source includes selecting a multicast address from a plurality of addresses based on a network access code (NAC), also referred to as the system ID, a talk group ID [see applicant's specification page 19, lines 4-5] number received from the communication source [col. 2, lines 56-57 and col. 2, lines 60-64 (the site maintains mapping multicast address to talk groups for selecting purposes)] .

As to claims 8 and 9, Shaughnessy teaches wherein selecting a multicast address includes accessing a registry of members [Fig. 2 at site 208 shows a list of members in a talk group and each talk group, for example TG ID D, includes a list of members that includes 212, 250, 213...].

As to claim 10, Shaughnessy teaches wherein accessing a registry of members includes accessing a registry of network access codes (NACs) [Fig. 2 at site 208 shows a talk group ID, for example TG ID D includes a list of members that include 212, 250, 213...].

As to claim 12, Shaughnessy teaches that accessing a registry of members includes accessing a registry of unit identifiers corresponding to subscribers [col.3, lines 12-21, a plurality of subscriber units (accessing talk group A gives access to unit identifier units 214 and 215)].

As to claim 13, Shaughnessy teaches that accessing a registry of members includes accessing a registry of call guards of a communication system [col. 5, lines 42-59, (call guards function to identify a member of a group, so whenever a subscriber joins a site request, an affiliation message allows a site to identify the subscriber to that talk group to which he belongs)].

As to claims 14 and 23, Shaughnessy teaches wherein further including receiving a request from a communication receiver to register with the selected multicast address [col.5, lines 41-48, (site controller receives a request from a subscriber, for affiliation)].

As to claims 15 and 24, Shaughnessy teaches wherein distributing the digital message includes encoding using real time transport protocol (RTP) [col. 6, lines 23-25 (voice conversation between talk groups is in real time transport protocol)].

As to claim 17, Shaughnessy teaches wherein distributing the digital message includes distributing a packet using Internet protocol (IP) [col. 3, lines 45-47].

As to claim 32, Shaughnessy discloses a method comprising:

receiving a message from a caller on a network, the message including a group identification code [col. 6, lines 56-58 (the site receives a message from a subscriber unit) illustrated in Fig. 6 step 607];

receiving a registration request from one or more receivers on the network [col. 6, lines 38-39, the site receives an affiliation message (a registration request) illustrated in Fig. 6 step 601];

mapping the group identification code to a multicast address [col. 7, lines 5-9, illustrated in Fig. 6 step 602];

transmitting a signal to a plurality of stations on the network, the plurality of stations selected as a function of the multicast address, the signal adapted to configure the network to direct the message to the one or more receivers [col. 7, lines 17-21, once the proper multicast address has been identified, the site transmits a message (transmits a signal) illustrated in Fig. 6 step 604].

As to claim 33, Shaughnessy teaches wherein mapping includes accessing a table [Fig. 2, site controller accessing table 225].

As to claim 34, Shaughnessy teaches wherein mapping includes dynamically establishing a virtual circuit [Fig. 2, a virtual circuit between site 208 and subscriber 214 (a virtual circuit that appears to a subscriber as a point-to-point link, and disconnects when the call is over)].

As to claim 35, Shaughnessy teaches wherein receiving a message includes receiving a packet of digital data encoded in an Internet protocol (IP)[IP multicast packet is encoded in an Internet protocol].

3. Claims 25, 28-31 and 36-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Maher et al. (US 6647020 B1).

As to claims 25 and 36, Maher teaches a system comprising:

a plurality of transceivers [Fig. 1, repeaters 122-126];

a plurality of routers wherein each transceiver is coupled to at least one router of the plurality of routers [Fig. 1, router 108, and router 110];

a digital communication network [Fig. 1 @ 100] coupled to the plurality of routers [Fig. 1 shows router 108, 110, 112 and 114 coupled together to make up network 100]; and

one or more computers [Fig. 1, zone controller 116] coupled to the digital communication network wherein the one or more computers are adapted to distribute a control packet to a subset of the plurality of routers based on a multicast address selected as a function of a group identification number received from the plurality of transceivers [col. 7, lines 30-46].

As to claim 28, Maher discloses wherein the digital communication network includes a private network [Fig. 1, remote site 102].

As to claim 29, Maher discloses, wherein the digital communication network includes an Ethernet network [col. 4, line 22].

As to claim 30, Maher discloses, wherein the digital communication network includes the Internet [IP multicasting implies the network includes Internet].

As to claims 31 and 37, Maher discloses, wherein a router of the plurality of routers includes a look up table [col. 9, lines 54-56].

As to claim 38, Maher discloses wherein the means for mapping includes a processor adapted for dynamic mapping [col. 4, lines 11-20].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaughnessy in view of Csapo (US 5910946).

As to claim 3, Shaughnessy does not teach wherein receiving a digital message includes receiving a digital message from a computer coupled to an audio transducer, but Csapo teaches [col. 1, lines 30-35]. It would have been obvious to a person of ordinary skill at the time of invention to combine Shaughnessy with Csapo in order to have two-way radio transmission service in a system. The motivation is for a subscriber to have voice access to a server that is controlled by an operator.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaughnessy.

As to claim 11, Shaughnessy teaches accessing a registry of members includes accessing a registry of sites [Fig.2, shows at site 208 (a registry site)], but Shaughnessy does not specifically mention home channels and group numbers, but as illustrated in Fig. 2 and col. 3, lines 29-33, each transmission medium could be made by means of a

different channel, so accessing a registry of members in talk group ID A associates with accessing TG ID A's home channels and group numbers that are A. Therefore, it would have been obvious to one of ordinary skill in the art to combine Shaughnessy's teaching on accessing a registry of sites with accessing home channels and group number of sites that have different transmission medium assignments. The motivation is the conservation and management of usable bandwidth.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaughnessy in view of Maher.

As to claim 18, Shaughnessy does not specifically teach distributing control messaging, but Maher teaches [col. 2, lines 55-58]. It would have been obvious to a person of ordinary skill at the time of the invention to combine Shaughnessy with Maher for devices to transmit messages to the multicast group participating devices. The motivation is to communicate with a certain member only.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaughnessy and Maher as applied to claim 18 above, and further in view of Brassil et al. (US 6771644 B1).

As to claim 19, Shaughnessy does not explicitly teach wherein distributing control messaging includes distributing real time control protocol (RTCP), but Brassil teaches messages conducted between sites distributed using RTCP [claim 11]. It would have been obvious to a person of ordinary skill at the time of the invention to combine Shaughnessy with Brassil in order to have two-way radio transmission service in a

system. The motivation is to provide feedback on reception quality, and distribute source identification and control information.

9. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaughnessy and Maher as applied to claim 18 above, and further in view of Kraft et al. (US 6832239 B1).

As to claims 20 and 21, Shaughnessy does not explicitly teach wherein distributing control messaging includes using simple object access protocol (SOAP), but Kraft teaches messages between networks can be encapsulated using SOAP formatting standard, which is built upon the Extensible Markup Language (XML) [col. 11, lines 50-56 and col. 10, lines 9-13]. It would have been obvious to a person of ordinary skill at the time of the invention to combine Shaughnessy with Kraft in order to have two-way radio transmission service in a system. The motivation is to use SOAP/XML formatting standard to transmit messages between networks, since the standard is less complex for a wireless network.

10. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maher as applied to claim 25 above.

As to claim 26, Maher does not specifically teach transceivers include a computer console, but Maher discloses [Fig. 1, console site 106 with computers 138, 140] the plurality of transceivers includes a computer console [col. 4, lines 44-47 and col. 7, lines 30-46]. The reason by which the computer console is not included in a transceiver presents no new or unexpected result, so long as affiliation requests by talk groups are processed accordingly.

As to claim 27, Maher does not specifically teach a telephony gateway with a transceiver, but Maher teaches network 100 in Fig. 1 includes a telephony device that includes a telephony gateway in order to transport voice and/or control messages over a LAN [col. 4 lines 48-57 & col. 5, lines 34-45]. The reason in which the telephony gateway is not included in a transceiver presents no new or unexpected results, so long as the IP control and audio packet conversion is maintained in the format of PSTN and vise versa.

Allowable Subject Matter

11. Claims 7 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zewdu Habte whose telephone number is 571-272-3115. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zewdu Habte (Zed) ZH
Examiner
Art Unit 2661

ZH
April 26, 2005

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600